

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-14. (cancelled)

15. (currently amended) An information recording medium, which can be recorded by an information recording apparatus or which can be reproduced by an information reproducing apparatus, on which one or a plurality of titles, each of which is a logically-grouped information unit, are recorded ~~with an information recording apparatus,~~ said information recording medium comprising:

an object data file for storing object data which constitutes a series of content information;

a play list information file for storing one or more ~~a plurality of~~ play list information including a plurality of item information which defines a reproduction sequence of the object data ~~stored in said object data file~~ by a unit of item, each of the plurality of item information includes start time and the end time of the object data ~~play list which is logically accessible;~~ and

an object information file for collectively storing object information which includes information for indicating

address of a packet of the object data corresponding to each item;
and

a disc information file for storing a plurality of information groups including, as reproduction control information for controlling the reproduction of said object data file, (i) play list specification information for specifying one play list information ~~which defines the play list to be reproduced from among the plurality of play list information~~ stored in said play list information file, (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information, and (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information, wherein

each of the object data file, the play list information file, the object information file and the disc information file is collectively recorded into different area, respectively

~~the title being logically comprising one or more than one of the plurality of information groups,~~

~~the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written,~~

~~the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table,~~

~~the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after the reproduction included in the command table,~~

~~the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command pointer and the Post command pointer.~~

16. (currently amended) The information recording medium according to claim 15, ~~wherein the object data is constructed such that an entire stream including a plurality of portion streams, each of which comprises the content information, is multiplexed by a unit of packet, which is a physically accessible unit and which stores therein a piece of the content information,~~

~~said object information information recording medium further comprising an object information file for storing correspondence definition information which defines the correspondence relationship between a plurality of packets to be multiplexed and a the plurality of portion streams which are constructed from the plurality of packets which construct the object data as another reproduction control information for controlling the reproduction of said object data file.~~

17. (canceled)

18. (canceled)

19. (currently amended) An information recording apparatus for recording one or a plurality of titles, each of which is a logically-grouped information unit, onto an information recording medium,

said information recording apparatus comprising:

a first recording device for recording an object data file for storing object data which constitutes a series of content information;

a second recording device for recording a play list information file for storing one or more ~~a plurality of~~ play list information including a plurality of item information which defines a reproduction sequence of the object data ~~stored in said object data file~~ by a unit of item, each of the plurality of item information includes start time and the end time of the object data-play list which is logically accessible; ~~and~~

a third recording device for recording a object information file for collectively storing object information which includes information for indicating address of a packet of the object data corresponding to each item; and

a fourth ~~third~~ recording device for recording a disc information file for storing a plurality of information groups including, as reproduction control information for controlling the reproduction of said object data file, (i) play list specification

information for specifying one play list information ~~which defines the play list to be reproduced from among the plurality of play list information~~ stored in said play list information file, (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information, and (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information, wherein

each of the object data file, the play list information file, the object information file and the disc information file is collectively recorded into different area, respectively

~~the title being logically comprising one or more than one of the information groups,~~

~~the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written,~~

~~the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table,~~

~~the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after the reproduction included in the command table,~~

~~the Pre command information and the Post command~~

~~information including a command pointer which specifies the address of each of the Pre command pointer and the Post command pointer.~~

20. (currently amended) An information recording method of recording one or a plurality of titles, each of which is a logically-grouped information unit, onto an information recording medium,

said information recording method comprising:

a first recording process of recording an object data file for storing object data which constitutes a series of content information;

a second recording process of recording a play list information file for storing one or more ~~a plurality of~~ play list information including a plurality of item information which defines a reproduction sequence of the object data ~~stored in said object data file~~ by a unit of item, each of the plurality of item information includes start time and the end time of the object data play list which is logically accessible; ~~and~~

a third recording process of recording a object information file for collectively storing object information which includes information for indicating address of a packet of the object data corresponding to each item; and

a ~~fourth~~ third recording process of recording a disc information file for storing a plurality of information groups

including, as reproduction control information for controlling the reproduction of said object data file, (i) play list specification information for specifying one play list information ~~which defines the play list to be reproduced from among the plurality of play list information~~ stored in said play list information file, (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information, and (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information, wherein

each of the object data file, the play list information file, the object information file and the disc information file is collectively recorded into different area, respectively

~~the title being logically comprising one or more than one of the information groups,~~

~~the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written,~~

~~the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table,~~

~~the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after~~

~~the reproduction included in the command table,~~

~~the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command pointer and the Post command pointer.~~

21. (currently amended) An information reproducing apparatus for reproducing at least one portion of recorded titles from an information recording medium on which one or the plurality of titles, each of which is a logically-grouped information unit, are recorded, said information recording medium comprising: an object data file for storing object data which constitutes a series of content information; a play list information file for storing one or more a plurality of play list information including a plurality of item information which defines a reproduction sequence of the object data ~~stored in said object data file~~ by a unit of item, each of the plurality of item information includes start time and the end time of the object data play list which is logically accessible; ~~and~~ an object information file for collectively storing object information which includes information for indicating address of a packet of the object data corresponding to each item; and a disc information file for storing a plurality of information groups including, as reproduction control information for controlling the reproduction of said object data file, (i) play list specification information

for specifying one play list information ~~which defines the play list to be reproduced from among the plurality of play list information~~ stored in said play list information file, (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information, and (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information, wherein each of the object data file, the play list information file, the object information file and the disc information file is collectively recorded into different area, respectively the title being logically comprising one or more than one of the plurality of information groups, the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written, the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table,
the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after the reproduction included in the command table, the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command pointer and the Post command pointer,

said information reproducing apparatus comprising:

a reading device for physically reading information from said information recording medium; and

a reproducing device for reproducing the object data included in the information read by said reading device, on the basis of the play list information file, the object information file and the disc information file ~~reproduction control information and the play list information~~ included in the information read by said reading device.

22. (currently amended) An information reproducing method of reproducing at least one portion of recorded titles from an information recording medium on which one or the plurality of titles, each of which is a logically-grouped information unit, are recorded, said information recording medium comprising: an object data file for storing object data which constitutes a series of content information; a play list information file for storing one or more ~~a plurality of~~ play list information including a plurality of item information which defines a reproduction sequence of the object data ~~stored in said object data file~~ by a unit of item, each of the plurality of item information includes start time and the end time of the object data play list which is logically accessible; ~~and~~ an object information file for collectively storing object information which includes information for indicating address of a packet of the object data corresponding to

each item; and a disc information file for storing a plurality of
information groups including, as reproduction control information
for controlling the reproduction of said object data file, (i)
play list specification information for specifying one play list
~~information which defines the play list to be reproduced from~~
~~among the plurality of play list information stored in said play~~
list information file, (ii) Pre command information which
indicates a command to be executed before the reproduction based
on the one play list information, and (iii) Post command
information which indicates a command to be executed after the
reproduction based on the one play list information, wherein each
of the object data file, the play list information file, the
object information file and the disc information file is
collectively recorded into different area, respectively ~~the title~~
~~being logically comprising one or more than one of the plurality~~
~~of information groups, the Pre command information and the Post~~
~~command information including a command table on which a command~~
~~group comprising zero, one or more statements are written, the Pre~~
~~command information including a Pre command pointer which is~~
~~written separately from the command table and which specifies the~~
~~address of the command to be executed before the reproduction~~
~~included in the command table, the Post command information~~
~~including a Post command pointer which is written separately from~~
~~the command table and which specifies the address of the command~~
~~to be executed after the reproduction included in the command~~

~~table, the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command pointer and the Post command pointer,~~

said information reproducing method comprising:

a reading process of physically reading information from said information recording medium; and

a reproducing process of reproducing the object data included in the information read by said reading device, on the basis of the play list information file, the object information file and the disc information file ~~reproduction control information and the play list information~~ included in the information read by said reading device.

23. (canceled)

24. (canceled)

25. (currently amended) A computer-readable storage medium storing thereon a computer program-product for controlling record and for tangibly embodying a program of instructions executable by a computer to make the computer function as at least one portion of a first recording device, a second recording device, a third recording device and a fourth ~~third~~ recording device,

the computer being provided in an information recording apparatus for recording one or a plurality of titles, each of which is a logically-grouped information unit, onto an information recording medium,

said information recording apparatus comprising:

said first recording device for recording an object data file for storing object data which constitutes a series of content information;

said second recording device for recording a play list information file for storing one or more ~~a plurality of~~ play list information including a plurality of item information which defines a reproduction sequence of the object data ~~stored in said object data file~~ by a unit of item, each of the plurality of item information includes start time and the end time of the object data play list which is logically accessible; ~~and~~

said third recording device for recording a object information file for collectively storing object information which includes information for indicating address of a packet of the object data corresponding to each item; and

said fourth ~~third~~ recording device for recording a disc information file for storing a plurality of information groups including, as reproduction control information for controlling the reproduction of said object data file, (i) play list specification information for specifying one play list information ~~which defines the play list to be reproduced from among the plurality of play~~

~~list information~~ stored in said play list information file, (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information, and (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information, wherein

each of the object data file, the play list information file, the object information file and the disc information file is collectively recorded into different area, respectively

~~the title being logically comprising one or more than one of the information groups,~~

~~the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written,~~

~~the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table,~~

~~the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after the reproduction included in the command table,~~

~~the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command pointer and the Post command~~

pointer.

26. (currently amended) A computer-readable storage medium storing thereon a computer program-product for controlling reproduction and for tangibly embodying a program of instructions executable by a computer to make the computer function as at least one portion of a reading device and a reproducing device, the computer being provided in An information reproducing apparatus for reproducing at least one portion of recorded titles from an information recording medium on which one or the plurality of titles, each of which is a logically-grouped information unit, are recorded, said information recording medium comprising: an object data file for storing object data which constitutes a series of content information; a play list information file for storing one or more ~~a plurality of~~ play list information including a plurality of item information which defines a reproduction sequence of the object data ~~stored in said object data file~~ by a unit of item, each of the plurality of item information includes start time and the end time of the object data ~~play list which is logically accessible; and~~ an object information file for collectively storing object information which includes information for indicating address of a packet of the object data corresponding to each item; and a disc information file for storing a plurality of information groups including, as reproduction control information for controlling the reproduction

of said object data file, (i) play list specification information for specifying one play list information ~~which defines the play list to be reproduced from among the plurality of play list information~~ stored in said play list information file, (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information, and (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information, wherein each of the object data file, the play list information file, the object information file and the disc information file is collectively recorded into different area, ~~respectively the title being logically comprising one or more than one of the plurality of information groups, the Pre command information and the Post command information including a command table on which a command group comprising zero, one or more statements are written, the Pre command information including a Pre command pointer which is written separately from the command table and which specifies the address of the command to be executed before the reproduction included in the command table,~~

~~the Post command information including a Post command pointer which is written separately from the command table and which specifies the address of the command to be executed after the reproduction included in the command table, the Pre command information and the Post command information including a command pointer which specifies the address of each of the Pre command~~

~~pointer and the Post-command pointer,~~

said information reproducing apparatus comprising:

said reading device for physically reading information
from said information recording medium; and

said reproducing device for reproducing the object data
included in the information read by said reading device, on the
basis of the play list information file, the object information
file and the disc information file~~reproduction control
information and the play list information~~ included in the
information read by said reading device.

27. (canceled)

28. (canceled)